

- Evaluate and install a total security system, including a fire control system
- Install Lexan protection at stained glass window in four locations \$1,200
- Install guttering and downspouts to protect walls at office addition on south wall \$600
- Extend Carriage House downspouts to pavement with guards and clean gutters \$500
- Repair and re-route downspouts on east wall \$800
- Install iron grate over wall AC unit at Addition \$300
- Install four new steel doors at Addition \$1,500
- Replace missing or broken cover plates for electrical switches, outlets, etc. \$5
- Repair roof and gutter leak in northwest corner of Room 307. Install heat track on downspout/gutter \$800
- Clean all heating and cooling ductwork \$300
- Establish requirements and procedure for humidity control. Hire mechanical engineer \$500
- Relocate third floor AC condensing unit to roof top and remove refrigerant lines from outside wall to improve efficiency and reduce visual clutter; repair leak from existing AC unit \$3,000
- Eliminate window AC in Room 308; add return air duct to third floor
- Replace insulation on refrigerant lines from second floor units; re-route to interior \$800
- Upgrade second floor HVAC to 95% efficiency; delete flue \$2,500
- Upgrade air cleaners (filters) and humidifiers. Omit electrostatic filters, replace with space pack \$1,000
- Provide a return air duct system in Room 307 \$1,000
- Assess overall earthquake protection. Hire a structural engineer to make recommendations \$4,000
- Repair plaster and wallpaper at front door \$400
- Repair spongy and squeaky floors in front hall and kitchen \$2,000
- Refurbish dining and sitting room floor and protect from further deterioration \$5,000
- Patch squirrel holes in cornice of Carriage House \$300

Kent Johnson, Full Printing Museum,
plays, Benj Franklin.

8469 Cass Dr,
Buena Park
CA 90621

world's largest printing
museum.

Mark Barboue, curator

Prof S. S. Block recommended me in an article

Nature Printing -

Franklin Papers

Early Paper Money of America

Emblems & Mottoes.

History of \$ in print.

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Mr. Steven Saxe
480 Rosedale Ave
White Plains, NY 10605

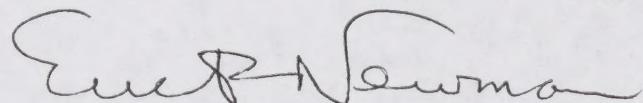
July 30, 1996

Dear Mr. Saxe:

On February 29, 1996 I wrote you about two color printing in the 18th century and sent you two original 1773 notes for study.

I have not received a response and wonder if you have come to any conclusions. Will you be kind enough to return the notes with any such comment as you can make.

Sincerely,



Eric P. Newman

13 Sept 1996
I telephoned him + he
promised to return the
2 notes over the weekend

EPN

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Mr. Steven Saxe
480 Rosedale Ave
White Plains, NY 10605

October 21, 1996

Dear Mr. Saxe:

Do you realize how much of a nuisance it is for me to have to contact you over and over for the return of the two colonial Pennsylvania notes I loaned you.

I wrote to you on February 29, 1996 and July 30, 1996. I telephoned you as recently as Sept. 13, 1996 and you promised to return them that weekend.

I suggest you return them immediately as my patience has run out.

Sincerely,

Eric P. Newman

Stephen O. Saxe 480 Rosedale Avenue White Plains, NY 10605

Tel./Fax (914) 948-4363 E-mail sos@westnet.com

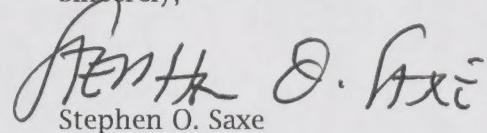
October 29, 1996

Mr. Eric P. Newman
Numismatic Education Society
6450 Cecil Avenue
St. Louis, MO 63105

Dear Mr. Newman:

My sincere apologies for not returning your notes. I am in the process of ploughing through mounds and mounds of letters and other papers, looking for them. I will keep at it until they turn up and then return them. I ask for your patience while I do so, and hope to have them back to you shortly.

Sincerely,



A handwritten signature in black ink, appearing to read "Stephen O. Saxe".

Stephen O. Saxe

Stephen O. Saxe 480 Rosedale Avenue White Plains, NY 10605

Tel./Fax (914) 948-4363 E-mail sos@westnet.com

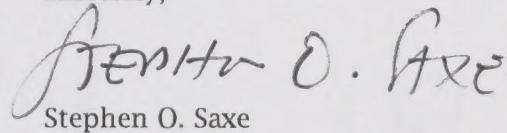
November 7, 1996

Mr. Eric P. Newman
Numismatic Education Society
6450 Cecil Avenue
St. Louis, MO 63105

Dear Mr. Newman,

I enclose herewith the two Pennsylvania currency notes, and I apologize for the long delay in returning them to you.

Sincerely,


Stephen O. Saxe



Int'l Printing Museum

8469 KASS DRIVE • BUENA PARK • CALIFORNIA • 90621 (714) 523-2070

21 February 1996

Eric P. Newman
6450 Cecil Avenue
St. Louis, Missouri 63105

Dear Eric:

Let me begin by apologizing for the long delay in responding to your October letter. Though excuses are not worth much, you caught us at a very busy time with school tours and myself with two major trips. In any event, thank you for sending along the material regarding Nature Printing by Franklin and the inquiry regarding the currency.

As to the currency, I have kept them at the top of my desk these many months pondering the production methods possible. My observations of the two notes are as follows:

20 Shilling Note

- there is a cut line in the numbers "77" of 1773, just underneath the red column of type. This leads me to assume there was one engraving used, but the separation of colors was first demarcated with a cut
- there seems to be a clear cut line around the red type
- the red type always seems either more worn or bolder or cruder than the black

15 Shilling Note

- on GEORGE, the letter "R" in red seems to have a spur or something rather than a straight vertical shank for the letter as it should
- the only mixture or overlap of colors I see on both notes is at the top of the 15 S note in the "HI" of shilling.

I understand the process you described of making the papier mache stereo and using it as a shield for the inking of each color. The problems I have with this description is that when you ink up the type with the ink balls, the mask will immediately stick to the leather on the balls. This would be less of a problem for the mask covering the black type since it could be made large enough to overhang the plate and be held down somehow.

But with the mask for the red type, the mask pieces would be so movable or loose with no way to secure them; their shape would not permit either wire or an overhang since the red is completely enclosed within an engraved border and type. Also, if the masks even moved just slightly, the second ink (whether red or black) would mix with the first ink. The examples shown do not give any evidence of such mixing. I would imagine, however, that it would be extremely difficult, if not impossible, to keep such small masks from moving at all and yet still keep them from adhering to the ink balls.

Some possibilities I would guess at:

- the red ink could have been applied without the ink balls, ie. with the fingers or by a brush after the masking process

Founded in 1988 by David Jacobson.

A project of the non-profit Int'l Printing Museum Foundation, featuring
the Ernest A. Lindner collection of Antique Printing Machinery.

- the engraved block was cut with a knife or blade to separate red and black areas
- Peter Schoeffer, Gutenberg's assistant and predecessor, achieved 3-color perfect registration printing in 1465 by this method: the ornate engraving was lifted out of the black printing form and ink separately in blue then placed back into the form; an additional piece, called a kernal, which represented the inside portion of part of the blue engraving, was also inked separately in red and placed into the blue engraving. With one pull on the bar, three colors were printed, in tight registration. It is possible that this printed employed a similar technique where the pieces were lifted out of the locked up form and inked in the separate color.
- I considered the possibility of the printer working with two identical stereotype copies of the engraving, one where the black type was smashed down, leaving the red raised up; the other with the red smashed down. My problem with this is that the art of stereotyping was not practiced by American printers until 1815 or 1820, though the Europeans had been experimenting with it for close to 100 years.
- the fact that the "77" is cut exactly underneath the red column of type suggests to me that it should have been partially inked in red but wasn't, and therefore, possibly it indicates only one solid engraving for both colors. It could just be damaged type, since the "7" on 1773 on the 15 S note also has a cut mark.

A note regarding the printing. The paper was dampened before printing and had to remain damp for the printing of the reverse side; if the paper dried it would have shrunk slightly and the printing of engravings especially would be next to impossible on a wooden press.

This exhausts me of my ideas regarding the notes. I find the hypothesis you propose interesting and certainly possible, but technically I see too many difficulties with executing it on a large scale with success. Maybe an experiment could be made with the ideas, either here or at Colonial Williamsburg at their print shop.

I hope this is somewhat helpful for you. Please don't hesitate to call if I can be of any further assistance; I promise not to put it off this long next time! You might consider talking to Elizabeth Harris at the Smithsonian for ideas or Steve Saxe, printing historian, in NY at (914)948-4363.

With best regards,

Mark Barbour

Mark Barbour
Director and Curator

sounds impossible as of then because the vertical cut would have to be razor thin and perfect for both sections to be usable.

Now the ball is in your court. Please elucidate. I know of no othermethods to print in two colors and have such perfect registry. Other red and black currency printing in the 18th century had loads of space between the two areas so registry was not that critcal.

My best,

A handwritten signature consisting of a stylized 'E' and 'N' followed by a small 'P'.

Eric P. Newman



Washington

WASHINGTON · UNIVERSITY · IN · ST · LOUIS

Department of Chemistry

September 8, 1995

To: Eric Newman

From: Peter Gaspar

Re: The PA Printing Problem

Eric: While I like the idea of differential inking of a locked frame of type as the means for producing the bicolor printing, I wonder if a Congreve-type compound printing plate has really been ruled out. If papier mâché could be accurately sliced to make inking pads, why not use the slices as molds to make lead stereotype pieces that could be inked separately and fitted together a la Congreve? That would of course be ruled out if it has been established that these notes were printed directly from locked frames of loose type.

This is probably a non-starter suggestion, but at least you can tell I am fascinated by the problem. Thanks again for sharing your current work with me. It did my heart and soul much good to be with you. I hope we can do it again soon!

A handwritten signature in blue ink that reads "Peter".

SIMULTANEOUS TWO COLOR PRINTING ON
18TH CENTURY PAPER MONEY

My theory as to how the red and black printing might have been done on the notes of the 1773 Pennsylvania issue containing the 10, 15, 20 and 50 shilling denominations is as follows:

Most of the type set letters and lead decorative cuts are printed in black but two small areas on the face of each denomination are printed in red. I find that where the red areas abut the black areas most adjacent letters are only in one color but consistently a certain few letters are in two colors, the colors being separate and not overlapping. In these two-color letters the register is perfect. There is also no smear. I conclude therefore that a single impression was made in two colors at the same time.

How was the ink applied so neatly? I believe that a thin papier mache stereo negative of the set type and cuts was applied and then dried. The areas to be printed in red were then cut out around their perimeters with a sharp tool.

The balance of the stereo was placed as a cover over the parts to be printed in black and then the red ink was applied to the open areas. The black area would therefore be protected from the red ink. If red ink got on the back of the stereo no harm was done.

Then that stereo would be removed and the cut outs placed over the areas to be printed in red. These 8 cut outs could be wired together in some manner or individually placed over the space they fit over. The black ink could then be applied onto the open area and if some black ink got smeared over the exposed top of the cut outs no harm would be done, as the red ink area would be protected when the black ink was applied.

Then the cut outs would be removed and the paper applied for the printing impression. The impression would be dried for a while before the opposite side was printed. Although the inking would be tedious for each impression, it might be less work and less time than two separate color printings on each side of each sheet, making a total of four impressions on a sheet.

The inside of the cut outs would get saturated with red ink and the inside of the balance of the stereo would get saturated with black ink. This should cause no major problem to the inking of the type surfaces.

Eric Newman

September 1995

met final

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

J. F. Killie
P.O. Box 957588
Hoffman Estates, IL 60195

October 9, 1995

Dear Jerry:

I sent you a memo about how I thought two color printing was done on the Pennsylvania 1773 bills. I believe weights would be pasted on top of the small papier mache cut outs to hold them down when the balance was being inked with black. What is your opinion now as to how this two color printing was done? I have to start writing the text for the 4th edition of my book and either equivocate or assert or straddle or plead ignorance on this matter. Please return the bills I sent you so I can decide what to give you if you still want a couple.

My best,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Kent Johnson
Mark Barbouq
International Printing Museum
8469 Kass Drive
Buena Park, CA 90621

October 26, 1995

Dear friends:

I am lending you for study the enclosed 15 and 20 shilling Pennsylvania paper money of 1773 printed in red and black. I think this was done simultaneously in two colors. I enclose a memo on how I think it might have been done.

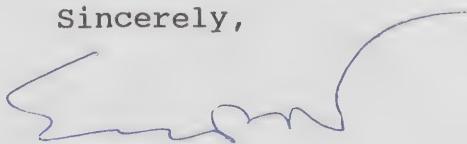
The 15 shilling number 24852 has XV in ligature in red to protect against counterfeiting as well as a strip of the top border in red.

The 20 shilling number 5380 has a "l" (small el) in red, this being the symbol for one pound (equal to 20 shillings). It also has a top border cut out in red.

These are part of a group of 30 pieces I have examined and all are in perfect register. They are printed on a sheet of 8 subjects, 4 faces and 4 backs. After drying they are flipped and replaced on the printing plate for printing on the other side, using the two nail registry system.

Your comments please as to how inking or printing was done.

Sincerely,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Kent Johnson
Mark Barbous
International Printing Museum
8469 Kass Drive
Buena Park, CA 90621

October 26, 1995

Dear friends:

Your telephone call yesterday about my work on Franklin printing was a pleasant surprise as I did not know of you and you did not know of me.

Franklin is my personal hero and I have written some items on his printing of paper money. My writing is in the field of numismatics including the printing of paper money in the American colonial period as a specialty.

I am sending you for your library a couple of relevant items I have written:

The Early Paper Money of America
"Nature Printing on Colonial and Continental Currency"
A study of the printed dollar sign included in my article
"The Origin of the Written and Printed \$ Sign"

Anything on Franklin which you have for us would be appreciated.

I hope I have been helpful to you.

Sincerely,



Eric P. Newman

SIMULTANEOUS TWO COLOR PRINTING ON
18TH CENTURY PAPER MONEY

My theory as to how the red and black printing might have been done on the notes of the 1773 Pennsylvania issue containing the 10, 15, 20 and 50 shilling denominations is as follows:

Most of the type set letters and lead decorative cuts are printed in black but two small areas on the face of each denomination are printed in red. I find that where the red areas abut the black areas most adjacent letters are only in one color but consistently a certain few letters are in two colors, the colors being separate and not overlapping. In these two color letters the register is perfect. There is also no smear. I conclude therefore that a single impression was made in two colors at the same time.

How was the ink applied so neatly? I believe that a thin papier mache stereo negative of the set type and cuts was applied wet and then dried. The areas to be printed in red were then cut out around their perimeters with a sharp tool.

The balance of the stereo was placed as a cover over the parts to be printed in black and then the red ink was applied to the open areas. The black area would therefore be protected from the red ink. If red ink got on the back of the stereo no harm was done.

Then that stereo would be removed and the 8 cut outs placed and fitted over the areas to be printed in red and possibly weighted to stay in place. The black ink could then be applied onto the open area and if some black ink got smeared over the exposed top of the cut outs no harm would be done, as the red ink area would be protected when the black ink was applied.

Then the cut outs would be removed and the paper applied for the printing impression. The impression would be dried for a while before the opposite side was printed. Although the inking would be tedious for each impression, it might be less work and less time than two separate color printings on each side of each sheet, making a total of four impressions on a sheet.

The inside of the cut outs would get saturated with red ink and the inside of the balance of the stereo would get saturated with black ink. This should cause no major problem to the inking of the type surfaces because it is the same color as the desired ink color.

Comments would be appreciated.

Eric P. Newman

January 1996

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Kent Johnson
Mark Barbous
International Printing Museum
8469 Kass Drive
Buena Park, CA 90621

January 9, 1996

Dear Gentleman:

I wrote you two letters on October 26, 1995, copies of which I enclose. I have had no reply and wonder what has taken place. May I please have a response.

Sincerely,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

J.F. Killie
P.O. Box 957588
Hoffman Estates, IL 60195

January 9, 1996

Dear Jerry:

I enclose a copy of my October 9, 1995 letter to you because I have had no response to it.

Are you having health problems? I hope you are okay. Please let me hear from you.

Happy New Year,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

J.F. Killie
P.O. Box 957588
Hoffman Estates, IL 60195

February 2, 1996

Dear Jerry:

I was glad to meet you face to face at the printing lecture.
I was worried about not receiving an answer to my letters.

Please go to your kitchen table and find my letters and paper
money.

I enclose a revision of my two color printing theory if I
didn't send it previously.

Sincerely,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

J.F. Killie
P.O. Box 957588
Hoffman Estates, IL 60195

February 29, 1996

Dear Jerry:

I am sorry I did not have the opportunity to talk to you further in St. Louis.

I have a new theory - namely the inside of the papier mache stereo could be inked and pressed onto the type instead of dabbing or brushing the ink directly on to the type. Each printing impression would remove the ink from the top of the type surface.

Now go to your kitchen table and find and return my notes. I told you I will give you a couple if you wish but you have neglected answering me. I was worried that you lost your marbles or collapsed but you were all there in St. Louis.

Action now.

Sincerely,



Eric P. Newman

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Mr. Stephen Saxe
480 Rosedale Ave
White Plains, NY 10605

February 29, 1996

Dear Mr. Saxe:

In accordance with our telephone conversation I enclose two October 1, 1773 Pennsylvania currency notes (serial number 24852 for 15 shillings and serial number 5380 for 20 shillings). You will observe that each has two areas printed in red, one in the text and one in the border cut. You will see that the registry is perfect on the set type letters which in some instances is part in one color and part in the other color. I feel that these items were not printed in two impressions (one in each color), but simultaneously. How that was done is my inquiry. My best present guess is that papier mache stereos were made and the pieces to be red were cut out of the stereo. Then the cut out pieces were first laid over the type for the red areas and the black ink was applied. Then the main part of the stencil was laid on the type and the cut out pieces were removed for red inking. This could be vice-versa. Perhaps the ink was put on the inside of the papier mache stencil and pressed on to the type from that. Perhaps it was brushed onto open areas instead of applied by ball.

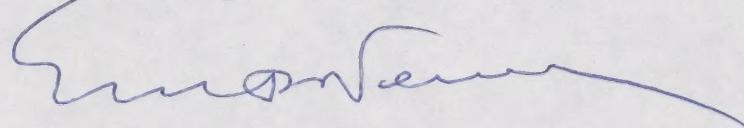
The notes were printed on a frame of 8 faces and 8 backs. It was flipped on a central axis after drying somewhat and thus both sides were complete. Two nail holes were used to keep proper registry of the two sides of each note.

The red area in the text is the denomination, XV in ligature for 15 and I for one pound. Only 4 faces have red and the other 4 are all in black. All backs are black.

I also enclose my recent article on the \$ sign since you are a printing historian. If you have written items please feel free to reciprocate.

Please return the notes with your comments. Have fun in Florida.

Sincerely,



Eric P. Newman

914-948 4363

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Mark Barbour
International Printing Museum
8469 Kass Drive
Buena Park, CA 90621

March 4, 1996

Dear Mark:

Your ideas as to two color printing made up for the delayed response. It is a very difficult problem, but you have added to the logic.

If my thought of the papier mache cutout is a possibility these could have a weight attached to their outer side so they would not move when ink was applied next to them. They would be fitting over raised type etc. in any event.

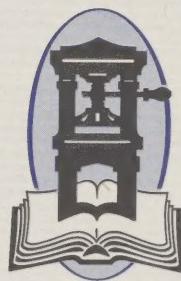
Now I have a more curious suggestion. Could the ink be applied to the inside of the papier mache cap and then the papier mache placed over the type and the design so that the ink transferred to the raised type surfaces which were clean from the prior printing? The subsurface portions would be a mess but that would be true regardless of the ink application method.

I look forward to hearing from you.

Sincerely,



Eric P. Newman



Int'l Printing Museum

8469 KASS DRIVE • BUENA PARK • CALIFORNIA • 90621 (714) 523-2070

16 April 1996

Eric P. Newman
6450 Cecil Ave
St. Louis, MI 63105

Dear Eric:

Regarding the weighted paper mache cutout, it could be a possibility. I do have a problem with inking the paper mache and using it to ink the type. I cannot see how it could apply a consistent and even layer of ink, or even transfer the ink properly at all. I would imagine that your many examples of currency would show very inconsistent inking of the red if this was the case. In the two you sent, I saw nothing unusual in the coloration of the black and red type.

I would recommend beginning some experiments on some of these ideas by a practical printer of the period, namely Colonial Williamsburg. The master printer there is Willie Parker and since they daily print on common presses and are familiar with the techniques of the period, I think they could recreate some possible solutions.

Best wishes,

MNH

Mark Barbour
Director and Curator

Parkers # is 804 / 229 - 1000

CWF P.O. Box 1776 - MHW
Williamsburg VA 23187-1776

ERIC P. NEWMAN NUMISMATIC EDUCATION SOCIETY

6450 Cecil Avenue, St. Louis, Missouri 63105

Jeremy F. Killie
P.O. Box 957588
Hoffman Estates, IL, 60195

April 18, 1995

Dear Jerry:

I have submitted the final draft of the \$sign article to the editor at the American Numismatic Society and he estimates 8 weeks until publication. I am exhausted fro the steady revisions I have made and the difficulty of being certain as to my comments.

Now comes some surprising pleasant news for me. The publishers of The Early Paper Money of America are about to run out of the third edition which was published in 1990 and wants me to prepare an update for a fourth edition. I have steadily made many interlineations so that will not be a problem. Only unresolved items are a menace and that is where you come in.

You still have some of our examples of red and black printing of currency. You indicated that you thought that stereotyping might have been used to produce two color printing designs and text in certain areas. Please explain how you think it was done. My idea follows.

If plaster or clay were put on top of individually set type or a design to make a matrix, then lead could be poured into that matrix to make a stereo or perhaps two or three. If the matrix broke at the end of the first pour another matrix could be easily made and another lead pour made. They would be identical. On one stereo the part to be printed in black would be left alone but the part to be printed in red would be filed down in its raised area, leaving the level of the red area low so it will not print when black ink was used but leaving a solid base of lead there. The other stereo would have the area to be printed in black filed or cut down so only the part to be used for red printing was projecting. Then each would be mounted on a wood block and set in a separate locked frame. The position in the frame would have to be adjusted so that registry could be accomplished, using the pinholes on the paper for the second printing in the second color. It could even be on a different press if the projecting nails on the second frame were in the indentical position. Then one press could do one color and one press do the other color after drying in between. The inks woul never slop over.

Another obvious alternative would be to have one lead matrix and cut out the red portion and leave the rest for the black portion. The thought of cutting a solid center part out of a one matrix and leaving the surrounding portion intact on the surface